

# Chapter Tests of SFM of CA Ashish Lalaji 9825856155

## SFM Test of Portfolio Management – 2

Maximum Marks: 30

Time Allowed: 1 hour

All questions are compulsory

**Q 1**

- (a)** Risk free rate of return is 9.25%. Required return as per APM is 17.4%. What is the factor sensitivity for stock market index?

Parameter	Beta	Expected Value in %	Actual Value in %
GNP	1.20	7.70	7.70
Inflation	1.75	5.50	7.00
Interest rate	1.30	7.75	9.00
Stock Market Index	?	10.00	12.00
Industrial production	1.00	7.00	7.50

Considering actual values prevail, what is the required return as per CAPM?

**(6 Marks)**

- (b)** Following information is available regarding expected return, standard deviation and beta of 6 shares:

Security	Expected Return (%)	Beta	S. D. (%)
1	5	0.70	9
2	10	1.05	14
3	11	0.95	12
4	12.5	1.10	20
5	15	1.40	17.5
6	16	1.70	25

Suppose you can borrow and lend at 4%. Market return is 6% and S.D. is 10%. You are required to compute:

- (i) Which security is undervalued and which is over valued
- (ii) Assuming that funds are equally invested in these 6 shares, compute:
- (a) Portfolio Return
- (b) Portfolio Risk

**(10 Marks)**

Question Paper by **CA. Ashish Lalaji**

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**Q 2****(a)** Consider following information:

Economic Scenario	Probability	Conditional Returns		
		A	B	Market
Growth	0.40	25	20	18
Stagnation	0.30	10	15	13
Recession	0.30	-5	-8	-3

Zero asset beta security provides 11%. Decide whether investor should liquidate holdings in stock A and B or on the contrary make fresh investments in them. CAPM assumptions are holding true.

**(8 Marks)****(b)** Five portfolios experienced the following results during a 7- year period:

Portfolio	Average Annual Return (%)	Standard Deviation ( $\sigma_p$ )	Correlation with market (r)
A	19.0	2.5	0.840
B	15.0	2.0	0.540
C	15.0	0.8	0.975
D	17.5	2.0	0.750
E	17.1	1.8	0.600
Market Risk ( $\sigma_m$ )		1.2	
Market rate of Return	14.0		
Risk-free Rate	9.0		

Rank the portfolios using (a) Sharpe's method, (b) Treynor's method and (c) Jensen's Alpha

**(6 Marks)**

**Question Paper prepared by CA. Ashish Lalaji**

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